

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0013175
DeKalb County
GDOT District 7 - Metro Atlanta
SR 12 @ CR 5192/Cove Lake Rd./Wellborn Rd.

OFFICE Design Policy & Support

DATE October 27, 2016

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Darryl VanMeter, State Innovative Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Eric Duff, State Environmental Administrator
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Monica Flournoy, State Materials and Testing Administrator
Patrick Allen, State Utilities Engineer
Richard Cobb, Statewide Location Bureau Chief
Andy Casey, State Roadway Design Engineer
Mehdi Bashirian, District Design Engineer
Ed David Adams, State Safety Program Manager
Kathy Zahul, District Engineer
Scott Lee, District Preconstruction Engineer
Nicholas Fields, District Utilities Engineer
Lauren Bolstad, Project Manager
BOARD MEMBER - 4th Congressional District

STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT

Project Type:	<u>Safety</u>	P.I. Number:	<u>0013175</u>
GDOT District:	<u>Seven</u>	County:	<u>DeKalb</u>
Federal Route Number:	<u>US 278</u>	State Route Number:	<u>SR 12</u>

P.I. No. 0013175 will improve the skew angle of Wellborn Road intersecting SR 12 from approximately 43° to greater than 60°. The left turn lane on southbound Wellborn Road will be separated from the thru traffic, thereby allowing the split phase to be removed from the traffic signal. The traffic signal will be upgraded and sidewalks will be added to both sides of SR 12/Covington Highway. Lighting will also be added to the intersection.

Submitted for approval:

<u><i>Patricia A. Baker</i></u>	<u>5-24-16</u>
GDOT Concept/Design Phase Office Head & Office	Date
<u><i>Albert V. Shelby/CLB</i></u>	<u>6/8/16</u>
State Program Delivery Engineer	Date
<u><i>Kimberly J. Hobitt</i></u>	<u>6.6.16</u>
GDOT Project Manager	Date

** Recommendation on file*

<i>* Eric Duff/KLC</i>	<u>6-13-2016</u>
State Environmental Administrator	Date
<i>* Christopher Raymond/KLC</i>	<u>6-22-2016</u>
State Traffic Engineer	Date

FOR

- ☒ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- ☐ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

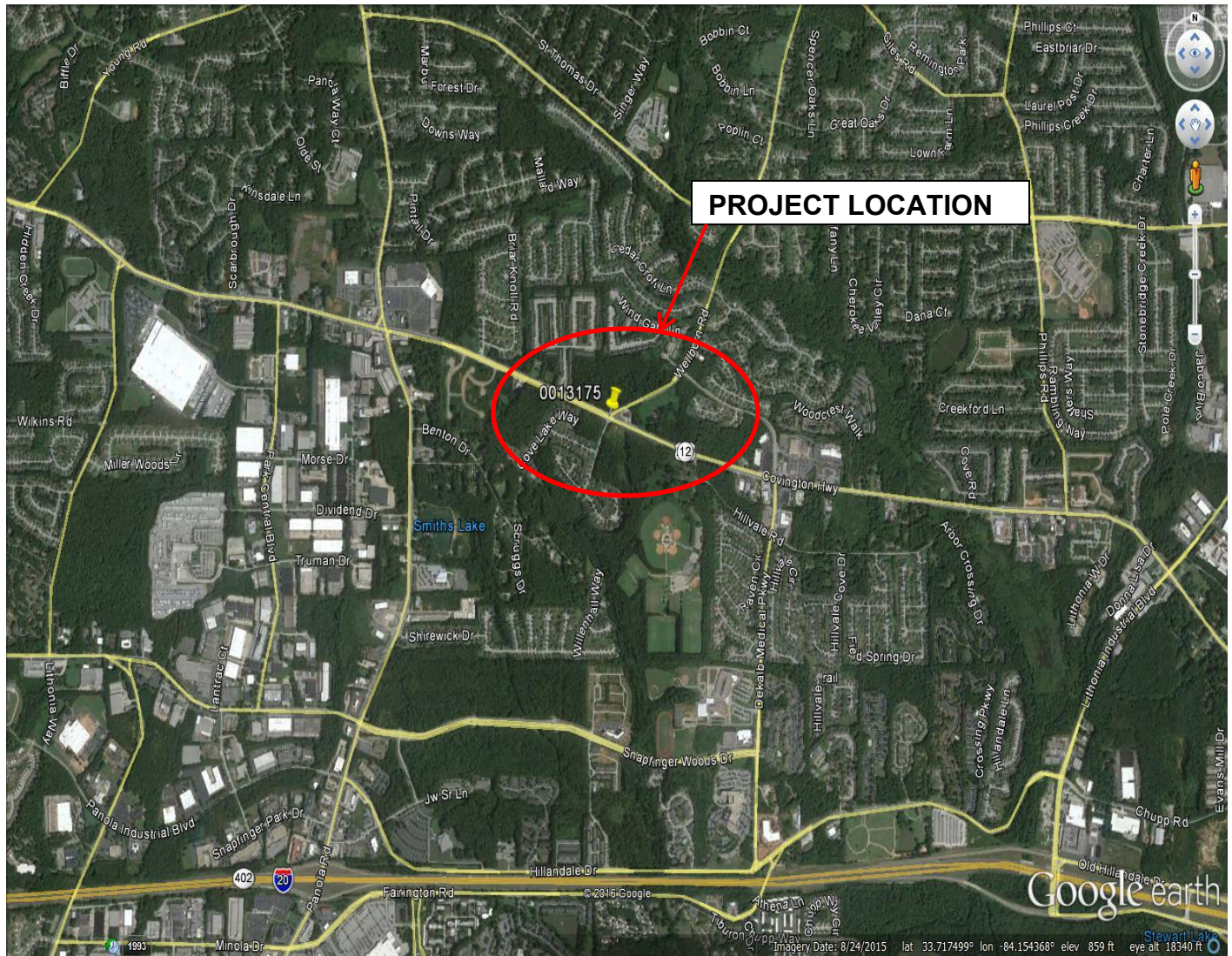
<u><i>Christina L. Naegele</i></u>	<u>6-16-16</u>
State Transportation Planning Administrator	Date

Approval:

Concur:	<u><i>Hjal Bittel</i></u>	<u>10-20-16</u>
	GDOT Director of Engineering	Date

Approve:	<u><i>Margaret B. Pirkle</i></u>	<u>10-21-16</u>
	GDOT Chief Engineer	Date

PROJECT LOCATION



PLANNING & BACKGROUND DATA

Project Justification Statement: Prepared by The Office of Traffic Operations

The purpose of this project is to reduce crash frequency and severity while improving the operations of State Route 12 (SR 12) and Cove Lake Road/Wellborn Road. In an effort to mitigate the crashes at the intersection the following improvements will be included: reducing the skew angle of Wellborn Road, upgrading the existing signal equipment, adding a right turn lane, and illuminating the intersection. The implementation of these proposed countermeasures will help reduce crash frequency and severities. The Office of Traffic Operations recommends a safety improvement project at this location.

Existing conditions: State Route 12 is an east/west urban minor arterial that connects Lithonia, Georgia to I-285 on the west side and I-20 on the south. The eastbound approach has two through lanes, a right turn lane onto Cove Lake Road, and a left turn lane onto Wellborn Road. The westbound approach has two through lanes and a left turn lane onto Cove Lake Road. Wellborn Road is a north/south urban collector connecting SR 12 to Redan Road allowing access to several subdivisions. Southbound Wellborn Road at SR 12 has one through/left turn lane and a right turn lane. The skew angle at this intersection is approximately 43 degrees.

Other projects in the area: P.I. No. 0013174

Description of the proposed project: P.I. No. 0013175 will realign Wellborn Road to intersect SR 12 with a skew angle of 70 degrees. A dedicated left turn lane will be added on southbound Wellborn Road allowing the split phase to be removed from this signal. Sidewalks will also be added to both sides of SR 12 throughout the project limits.

MPO: Atlanta Regional Commission (ARC)

TIP #: N/A

TIA Regional Commission: Atlanta Regional Commission

RC Project ID N/A

MPO Name Congressional District(s): 4

Federal Oversight: ☒ Exempt ☐ State Funded ☐ Other

Projected Traffic: ADT 24 HR T: 3.0%
Current Year (2016): 18,000 Open Year (2020): 19,100 Design Year (2040): 25,800
Traffic Projections Performed by: Office of Planning

Functional Classification (Mainline): Urban Minor Arterial Street

Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants:

Warrants met: ☐ None ☐ Bicycle ☒ Pedestrian ☒ Transit

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? ☒ No ☐ Yes
Preliminary Pavement Type Selection Report Required? ☒ No ☐ Yes
Feasible Pavement Alternatives: ☒ HMA ☐ PCC ☐ HMA & PCC

DESIGN AND STRUCTURAL

Description of Proposed Project: N/A

Mainline Design Features: SR 12/Covington Highway

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4	N/A	4
- Lane Width(s)	12'	12'	12'
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder or Border Area Width	8' URBAN	N/A	10' URBAN
- Outside Shoulder Slope	N/A	2%	2%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	N/A	5'	5'
- Auxiliary Lanes	12'	12'	12'
- Bike Lanes	N/A	N/A	N/A
Posted Speed	45		45
Design Speed	45	45	45
Min Horizontal Curve Radius	N/A	711'	711'
Maximum Superelevation Rate	N/A	4%	4% MAX
Maximum Grade	4%	7% MAX	4%
Access Control	BY PERMIT	BY PERMIT	BY PERMIT
Design Vehicle	N/A	WB-40	WB-40
Pavement Type	ASPHALT	ASPHALT	ASPHALT

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: None

Lighting required: ☐ No ☒ Yes

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes
If Yes: Project classified as: ☒ Non-Significant ☐ Significant
TMP Components Anticipated: ☒ TTC ☐ TO ☐ PI

Will Context Sensitive Solutions procedures be utilized? ☒ No ☐ Yes

Design Exceptions to FHWA/AASHTO controlling criteria anticipated: None anticipated.

Design Variances to GDOT Standard Criteria anticipated: None anticipated.

UTILITY AND PROPERTY

Railroad Involvement: None

Utility Involvements: Atlanta Gas Light Company, AT&T (Distribution), Charter Communication, Comcast, Dekalb County Water and Sewer, Dekalb County Traffic, Georgia Power (Distribution), Tower Cloud Communication, Zayo Fiber Solution

SUE Required: ☐ No ☒ Yes

Public Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Required Right-of-Way anticipated: ☐ No ☒ Yes ☐ Undetermined
Easements anticipated: ☐ None ☐ Temporary ☒ Permanent ☐ Utility ☐ Other
Anticipated total number of impacted parcels: 4
Displacements anticipated: Businesses: 4
Residences: 0
Other: 0
Total Displacements: 0

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:

GEPA: ☐ NEPA: ☒ CE ☐ PCE

MS4 Compliance – Is the project located in an MS4 area? ☐ No ☒ Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? ☐ No ☒ Yes
Is the project located in an Ozone Non-attainment area? ☐ No ☒ Yes
Carbon Monoxide hotspot analysis: ☐ Required ☒ Not Required ☐ TBD
(If any of the above are answered “Yes”, additional analysis may be required; see section in Appendix A for further information)

NEPA/GEPA Comments & Information: Environmental screenings & mitigation for this project is being determined.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Project Meetings:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	GDOT
Design	GDOT
Right-of-Way Acquisition	GDOT
Utility Coordination (Preconstruction)	GDOT
Utility Relocation (Construction)	UTILITY COMPANIES
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	CONTRACTOR
Providing Detours	N/A
Environmental Studies, Documents, & Permits	GDOT
Environmental Mitigation	N/A
Construction Inspection & Materials Testing	GDOT

Other coordination to date:

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	GDOT	R/W PHASE NEEDS TO BE ADDED	GDOT	GDOT	N/A	
\$ Amount	200,000	307,000	200,000	880,000		1,587,000
Date of Estimate	2016	May 2016	May 2016	April 2016		

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Preferred Alternative 1: Realignment of Wellborn Road to improve skew angle with SR 12			1,587,000
Estimated Property Impacts:	4 Parcels	Estimated Total Cost:	1,296,542.22
Estimated ROW Cost:	307,000	Estimated CST Time:	18 Months
Rationale: Minimize right of way and utility impacts while improving the skew angle.			

No-Build Alternative: No Build			
Estimated Property Impacts:	0	Estimated Total Cost:	0
Estimated ROW Cost:	0	Estimated CST Time:	0
Rationale: This alternative does not resolve the safety issue.			

Alternative 2: Realignment of Wellborn and Cove Lake Roads to improve skew angle with SR 12			
Estimated Property Impacts:	5 Parcels	Estimated Total Cost:	1,662,307.23
Estimated ROW Cost:	195,000	Estimated CST Time:	18 Months
Rationale: Larger construction footprint involving more parcels and higher cost.			

Comments/Additional Information:

LIST OF ATTACHMENTS:

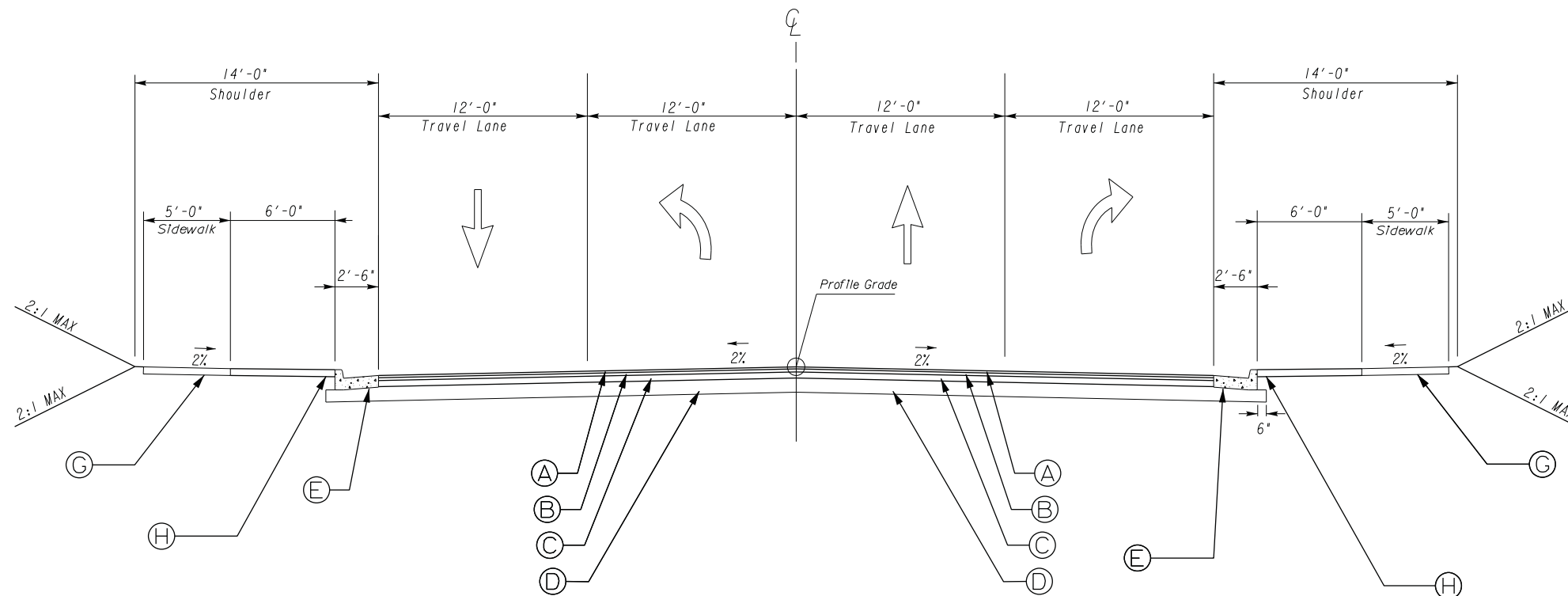
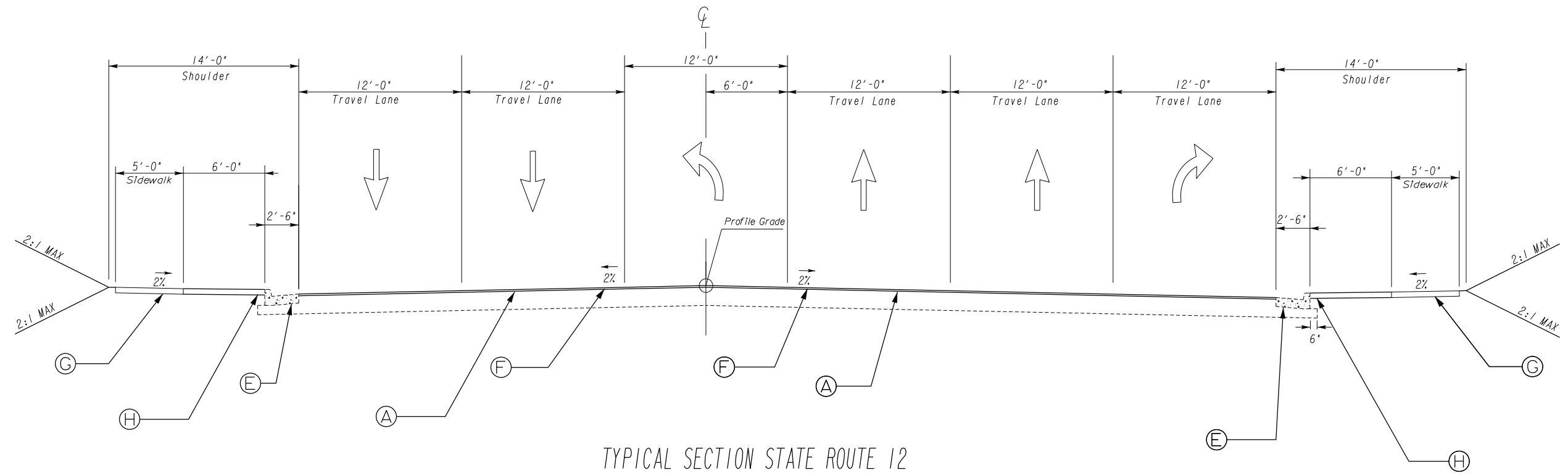
1. Concept Layouts
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection
 - b. Fuel & Asphalt Price Adjustment Form
 - c. Right-of-Way
 - d. Utilities
4. Crash summaries
5. Traffic diagrams or projections
6. Capacity analysis summary
7. TE Study
8. Lighting Agreement Indication of Support
9. Concept Team Meeting Minutes

P. I. NO. 0013175
ALTERNATE 1



P. I. NO. 0013175
ALTERNATE 2





- (A) RECYCLED ASPH CONC 12.5 MM SUPERPAVE
- (B) RECYCLED ASPH CONC, 19 MM SUPERPAVE
- (C) RECYCLED ASPH CONC, 25 MM SUPERPAVE
- (D) GRADED AGGREGATE BASE CRS, INCL MATL
- (E) CONC CURB AND GUTTER, 8 IN X 30 IN, TYPE 2
- (F) MILL ASPH CONC PVMT, VARIABLE DEPTH
- (G) CONCRETE SIDEWALK, 4" THICK
- (H) FEDERAL CODE 31136 RED STAMPED CONCRETE

DETAILED COST ESTIMATE



Job: 0013175_DR

JOB NUMBER: 0013175_DR

FED/STATE PROJECT NUMBER: 0013175

SPEC YEAR: 13

DESCRIPTION: WELLBORN ROAD @ SR 12/COVINGTON HIGHWAY

ITEMS FOR JOB 0013175_DR

0010 - ROADWAY

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0085	150-1000	1.000	LS	\$60,000.00000	TRAFFIC CONTROL - 0013175	\$60,000.00
0090	210-0100	1.000	LS	\$150,000.00000	GRADING COMPLETE - 0013175	\$150,000.00
0040	310-1101	1375.000	TN	\$26.41819	GR AGGR BASE CRS, INCL MATL	\$36,325.01
0049	402-3121	490.000	TN	\$87.01542	RECYL AC 25MM SP,GP1/2,BM&HL	\$42,637.56
0054	402-3130	1260.000	TN	\$82.25703	RECYL AC 12.5MM SP,GP2,BM&HL	\$103,643.86
0050	402-3190	365.000	TN	\$91.73723	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	\$33,484.09
0058	413-0750	660.000	GL	\$2.89011	TACK COAT	\$1,907.47
0105	432-5010	12500.000	SY	\$2.92884	MILL ASPH CONC PVMT,VARB DEPTH	\$36,610.50
0160	441-0016	45.000	SY	\$42.11767	DRIVEWAY CONCRETE, 6 IN TK	\$1,895.30
0975	441-0104	2600.000	SY	\$30.46530	CONC SIDEWALK, 4 IN	\$79,209.78
0155	441-0108	60.000	SY	\$64.88039	CONC SIDEWALK, 8 IN	\$3,892.82
0059	441-6222	1850.000	LF	\$21.13786	CONC CURB & GUTTER/ 8X30TP2	\$39,105.04
0215	446-1100	150.000	LF	\$7.68711	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	\$1,153.07
0275	500-9999	10.000	CY	\$195.41506	CL B CONC,BASE OR PVMT WIDEN	\$1,954.15
0175	634-1200	10.000	EA	\$120.45948	RIGHT OF WAY MARKERS	\$1,204.59
SUBTOTAL FOR ROADWAY:						\$593,023.24

0020 - SIGNING AND MARKING

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0110	636-1033	40.000	SF	\$20.98269	HWY SIGNS, TP1MAT,REFL SH TP 9	\$839.31
0115	636-2070	66.000	LF	\$9.01589	GALV STEEL POSTS, TP 7	\$595.05
0245	639-4004	4.000	EA	\$7,432.69932	STRAIN POLE, TP IV	\$29,730.80
0250	647-1000	1.000	LS	\$50,000.00000	TRAF SIGNAL INSTALLATION NO - 0013175	\$50,000.00
0290	652-0110	2.000	EA	\$46.94779	PAVEMENT MARKING, ARROW, TP 1	\$93.90
0980	652-0120	14.000	EA	\$86.49431	PAVEMENT MARKING, ARROW, TP 2	\$1,210.92
0120	653-1501	3800.000	LF	\$0.57982	THERMO SOLID TRAF ST 5 IN, WHI	\$2,203.32
0125	653-1502	3800.000	LF	\$0.54563	THERMO SOLID TRAF ST, 5 IN YEL	\$2,073.39
0140	653-1704	150.000	LF	\$6.32400	THERM SOLID TRAF STRIPE,24,WH	\$948.60
0145	653-1804	800.000	LF	\$2.49682	THERM SOLID TRAF STRIPE, 8,WH	\$1,997.46
0260	653-3501	6800.000	GLF	\$0.21870	THERMO SKIP TRAF ST, 5 IN, WHI	\$1,487.16
0255	654-1001	45.000	EA	\$4.71283	RAISED PVMT MARKERS TP 1	\$212.08
SUBTOTAL FOR SIGNING AND MARKING:						\$91,391.99

DETAILED COST ESTIMATE



Job: 0013175_DR

0030 - EROSION CONTROL

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0060	163-0232	1.000	AC	\$451.96041	TEMPORARY GRASSING	\$451.96
0065	163-0240	30.000	TN	\$309.52945	MULCH	\$9,285.88
0095	163-0300	2.000	EA	\$1,377.97921	CONSTRUCTION EXIT	\$2,755.96
0270	163-0550	12.000	EA	\$133.66392	CONS & REM INLET SEDIMENT TRAP	\$1,603.97
0075	165-0030	2450.000	LF	\$0.51132	MAINT OF TEMP SILT FENCE, TP C	\$1,252.73
0100	165-0101	2.000	EA	\$601.63564	MAINT OF CONST EXIT	\$1,203.27
0265	165-0105	12.000	EA	\$36.84437	MAINT OF INLET SEDIMENT TRAP	\$442.13
0070	171-0030	4900.000	LF	\$3.06804	TEMPORARY SILT FENCE, TYPE C	\$15,033.40
0195	550-1180	900.000	LF	\$46.63031	STM DR PIPE 18,H 1-10	\$41,967.28
0180	668-1200	6.000	EA	\$3,050.17203	CATCH BASIN, GP 2	\$18,301.03
0080	700-6910	1.000	AC	\$852.15691	PERMANENT GRASSING	\$852.16
0130	700-7000	1.000	TN	\$141.89116	AGRICULTURAL LIME	\$141.89
0135	700-8000	1.000	TN	\$642.27729	FERTILIZER MIXED GRADE	\$642.28
0165	716-2000	200.000	SY	\$1.31235	EROSION CONTROL MATS, SLOPES	\$262.47
SUBTOTAL FOR EROSION CONTROL:						\$94,196.41

TOTALS FOR JOB 0013175_DR

ITEMS COST:	\$778,611.64
COST GROUP COST:	\$0.00
ESTIMATED COST:	\$778,611.64
CONTINGENCY PERCENT:	0.05
ENGINEERING AND INSPECTION:	0.05
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$856,472.80

856,472.80 CST Cost w/E&I & contingencies + 21,890.69 Liquid AC Adj. =

878,362.80 Total Construction Cost - rounded to \$ 880,000

PROJ. NO.

P.I. NO.

DATE

0013175	
4/19/2016	

CALL NO.

9/29/2009

INDEX (TYPE)

DATE

INDEX

REG. UNLEADED

Apr-16

\$ 2.037

DIESEL

\$ 2.120

LIQUID AC

\$ 336.00

Link to Fuel and AC Index:

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>**LIQUID AC ADJUSTMENTS****PA=[((APM-APL)/APL)]xTMTxAPL****Asphalt**

Price Adjustment (PA)

21319.2

\$

21,319.20

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$

537.60

Monthly Asphalt Cement Price month project let (APL)

\$

336.00

Total Monthly Tonnage of asphalt cement (TMT)

105.75

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	1260	5.0%	63
9.5 mm SP		5.0%	0
25 mm SP	490	5.0%	24.5
19 mm SP	365	5.0%	18.25
	2115		105.75

BITUMINOUS TACK COAT

Price Adjustment (PA)

\$

571.49

\$

571.49

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$

537.60

Monthly Asphalt Cement Price month project let (APL)

\$

336.00

Total Monthly Tonnage of asphalt cement (TMT)

2.834766609

Bitum Tack

Gals	gals/ton	tons
660	232.8234	2.83476661

BITUMINOUS TACK COAT (surface treatment)

DATE _____

4/19/2016

9/29/2009

Total Monthly Tonnage of asphalt cement (TMT)

—

60%

\$

537.60

\$

336.00

0

SY

Gals/SY

Gals

gals/ton

tons

Single Surf. Trmt.

0.20

0

232.8234

0

Double Surf.Trmt.

0.44

0

232.8234

0

Triple Surf. Trmt

0.71

0

232.8234

0

0

TOTAL LIQUID AC ADJUSTMENT

\$

21,890.69

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 5/18/2016
Revised:

Project: SR 12 and Wellborn/Cove Lake Rd.
County: DeKalb
PI: 0013175

Description: Safety, Intersection Improvement
Project Termini:

Existing ROW: Varies
Required ROW: Varies
Parcels: 4

Land and Improvements \$216,000.00

Proximity Damage \$0.00

Consequential Damage \$0.00

Cost to Cures \$0.00

Trade Fixtures \$0.00

Improvements \$0.00

Valuation Services \$6,000.00

Legal Services \$40,200.00


Relocation \$9,000.00

Demolition \$0.00

Administrative \$35,500.00

TOTAL ESTIMATED COSTS \$306,700.00

TOTAL ESTIMATED COSTS (ROUNDED) \$307,000.00

Preparation Credits	Hours	Signature
	10	

Prepared By:

Travis Bailey

CG#: 366425

(DATE) 5-18-16

Approved By:



CG#: 7207

(DATE) 5-18-16

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTER-DEPARTMENT CORRESPONDENCE

FROM: Nicholas Fields
District Utilities Engineer



DATE: May 5, 2016

TO: Kimberly Nesbitt, Project Manager

SUBJECT: PRELIMINARY UTILITY COST ESTIMATE
0013175/Dekalb/ SR 12 @ Cove Lake Road/ Wellborn Road

As requested by your office, we are furnishing you with a Preliminary Cost Estimate for each utility with facilities potentially located with the project limits.

FACILITY OWNER	REIMBURSABLE	NON-REIMBURSABLE	TOTAL
Atlanta Gas Light Company	\$0.00	\$105,600.00	\$105,600.00
AT&T (Distrubution)	\$0.00	\$102,000.00	\$102,000.00
Charter Communication	\$0.00	\$56,100.00	\$56,100.00
Comcast of Georgia	\$0.00	\$56,100.00	\$56,100.00
Dekalb County (Water) and Sewer	\$0.00	\$101,400.00	\$101,400.00
Dekalb County Water and (Sewer)	\$0.00	\$112,565.00	\$112,565.00
Dekalb County Traffic	\$0.00	\$34,000.00	\$34,000.00
Georgia Power Company (Distrubution)	\$200,000.00	\$0.00	\$200,000.00
Tower Cloud Communication	\$0.00	\$56,100.00	\$56,100.00
Zayo Fiber Solution	\$0.00	\$56,100.00	\$56,100.00
TOTAL	\$200,000.00	\$679,965.00	\$879,965.00

This estimate is based upon the current information. We will provide an updated estimate when the plans are further developed.

If you have any questions, please contact _Lewis Brooker_ at 770-986-1117

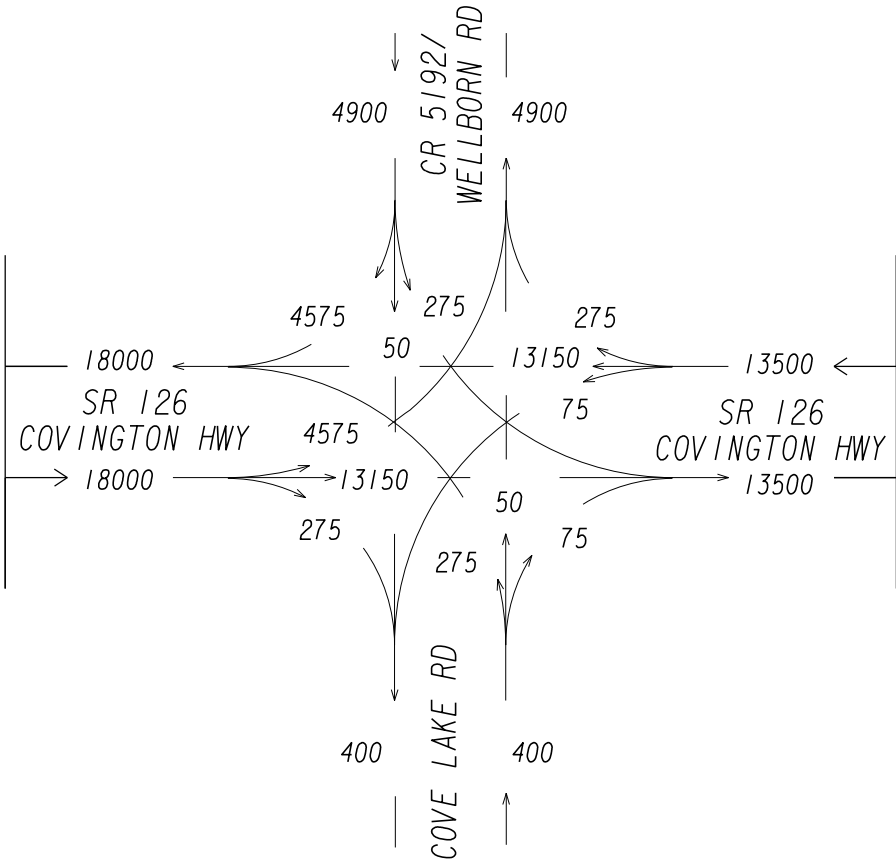
KZ/NF/SW/LB

Cc: Lee Upkins, State Utilities Engineer

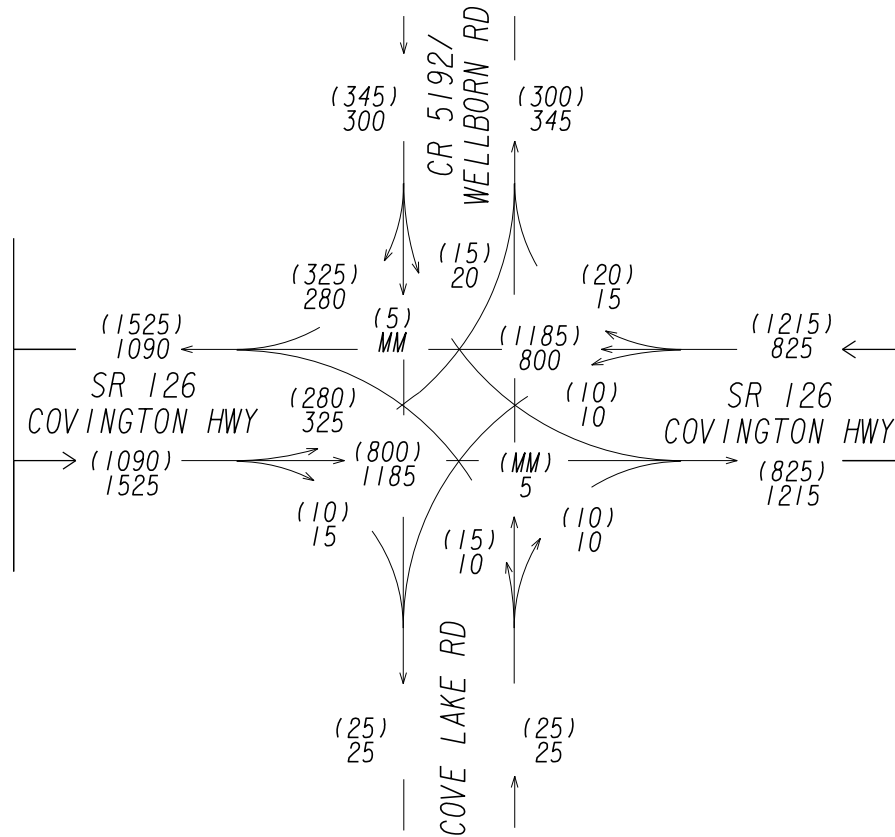
Crash Report Summary Table: DeKalb County, US 278/SR 12/Covington Highway and Cove Lake Road/Wellborn Road

Year	Angle	Head on	Sideswipe	Rear-End	Not a Collision with a Motor Vehicle	Total	Injuries
2011	9	2	1	37		49	27
2012	3		2	26	1	32	24
2013	11	3	1	37	2	54	33
2014	8	2	8	34	5	57	29
2015	13	2	9	34	3	61	37

2016 ADT
EXISTING



2016 DHV
EXISTING



PM DHV = (000)
AM DHV = 000

PI# 0013175
DEKALB COUNTY
SR 126 AT CR 5192/ COVE
LAKE RD/ WELLBORN RD

24 HOUR T= 3.0%
SU= 2.6%
COMB= 0.4%



T= 2.0%
SU= 1.8%
COMB= 0.2%

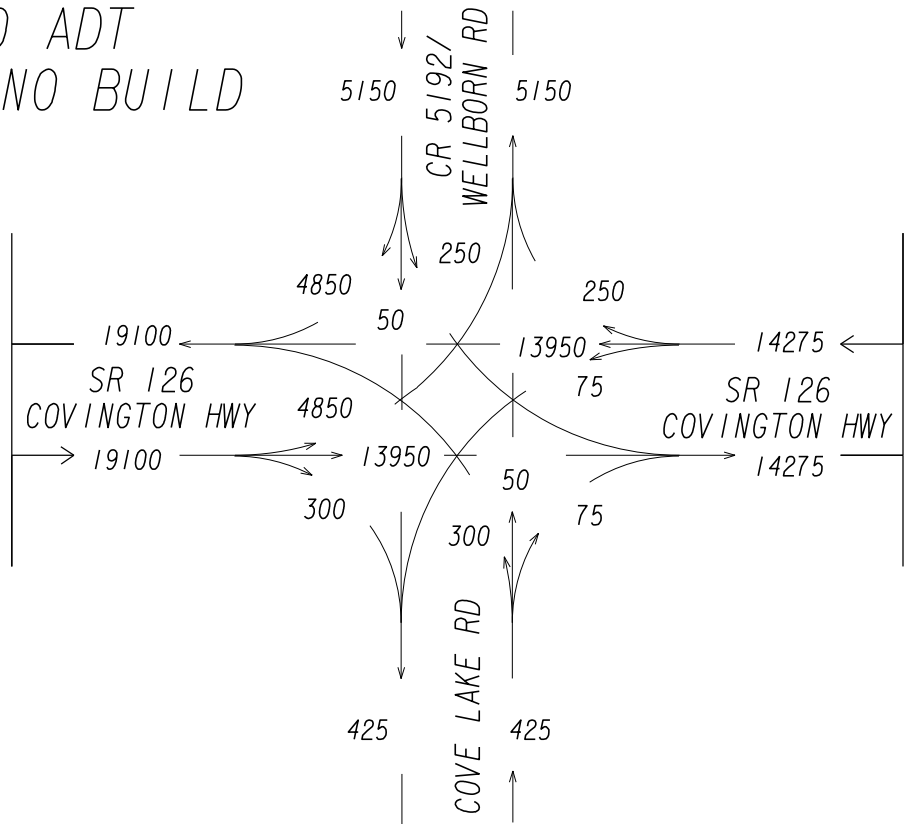
REVISION DATES		
5/2016		

TRAFFIC DIAGRAM

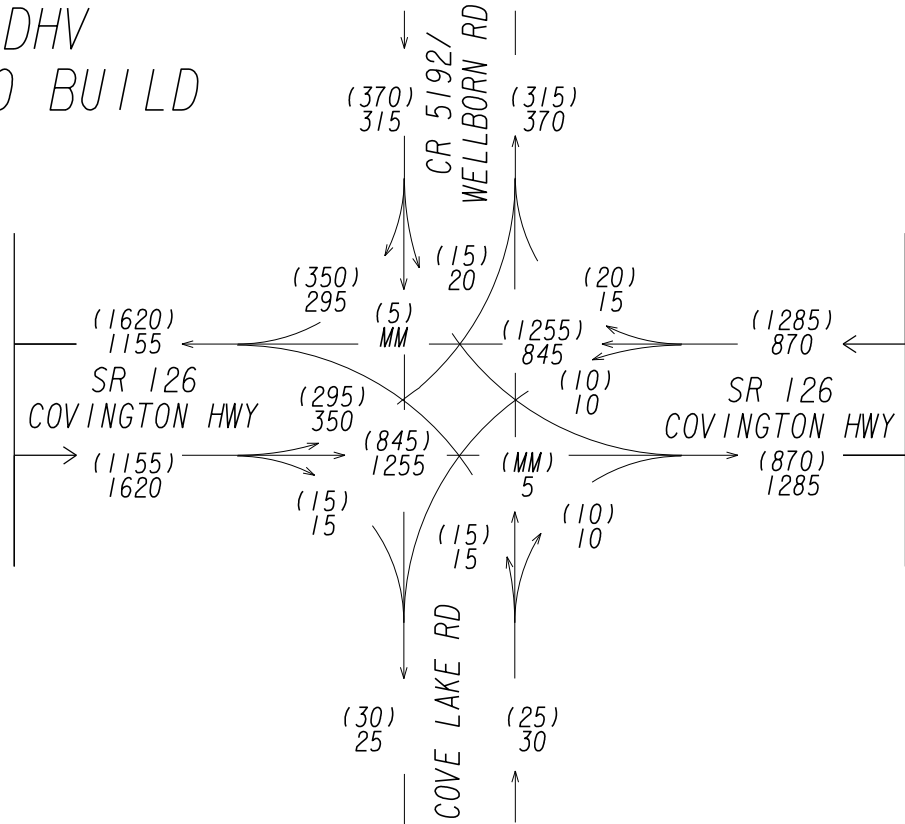
CHECKED:	DRF	DATE:	5/5/2016	DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10- 01

2020 ADT
BUILD= NO BUILD

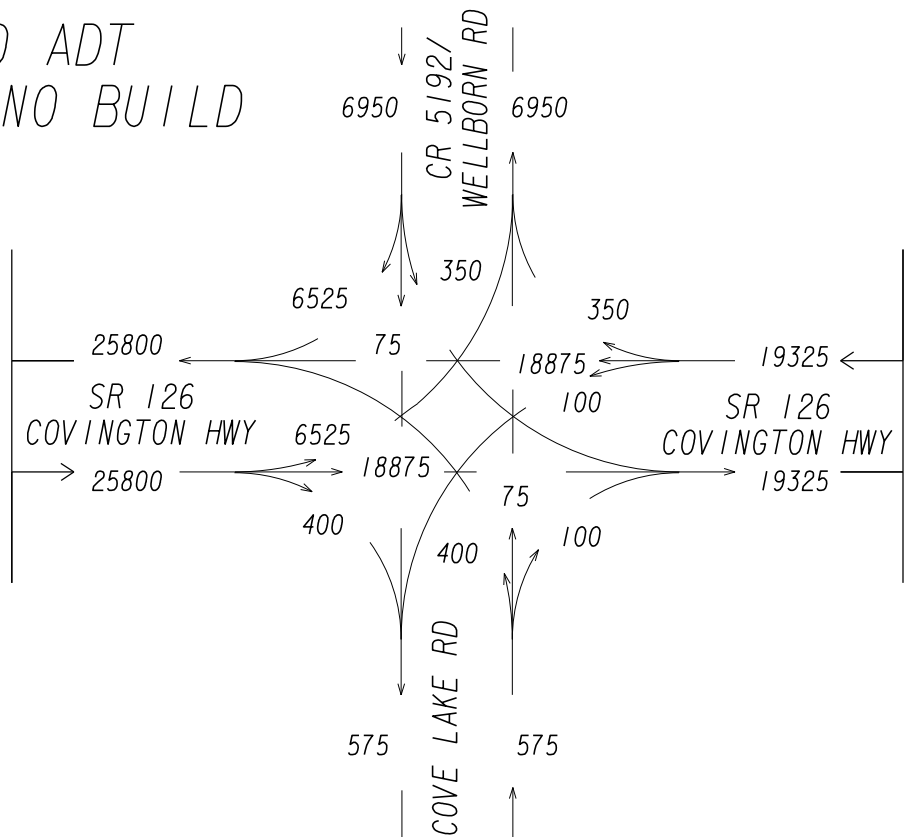


2020 DHV
BUILD= NO BUILD

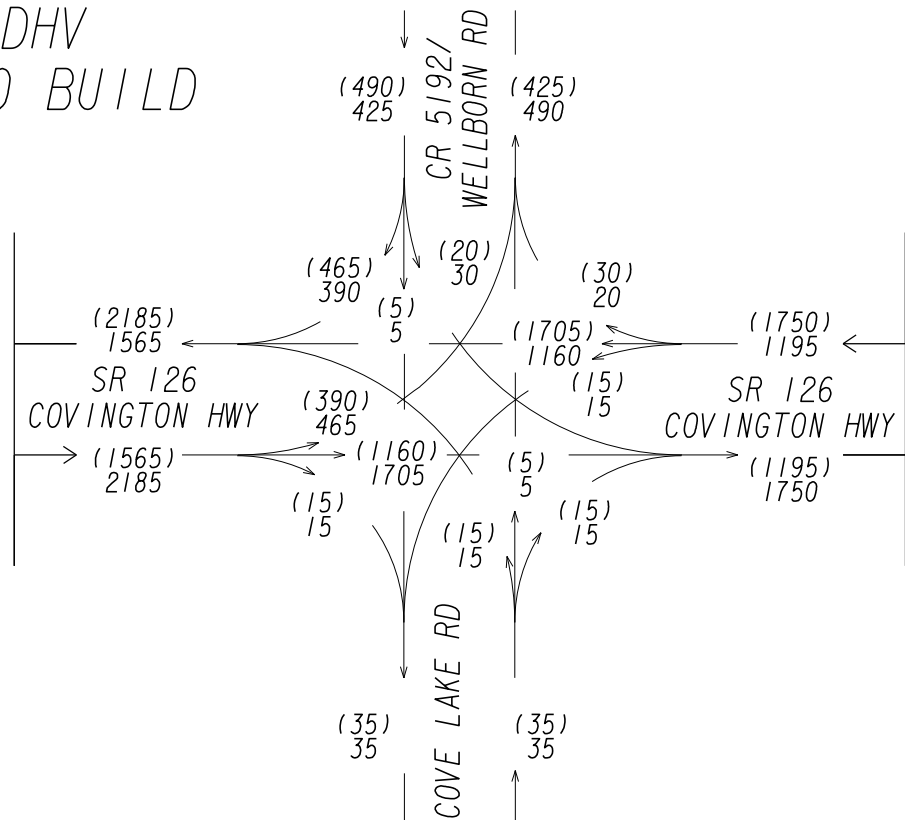


PM DHV = (000)
AM DHV = 000

2040 ADT
BUILD= NO BUILD



2040 DHV
BUILD= NO BUILD



PM DHV = (000)
AM DHV = 000

PI# 0013175
DEKALB COUNTY
SR 126 AT CR 5192/ COVE
LAKE RD/ WELLBORN RD

24 HOUR T= 3.0%
SU= 2.6%
COMB= 0.4%



T= 2.0%
SU= 1.8%
COMB= 0.2%

REVISION DATES

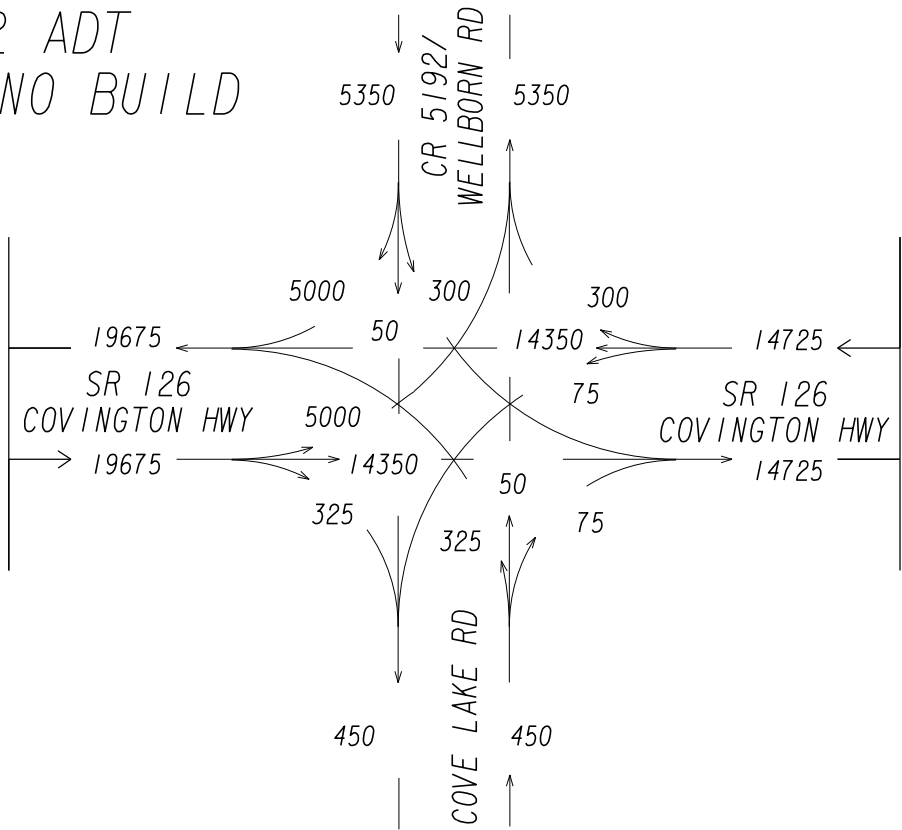
5/2016		

TRAFFIC DIAGRAM

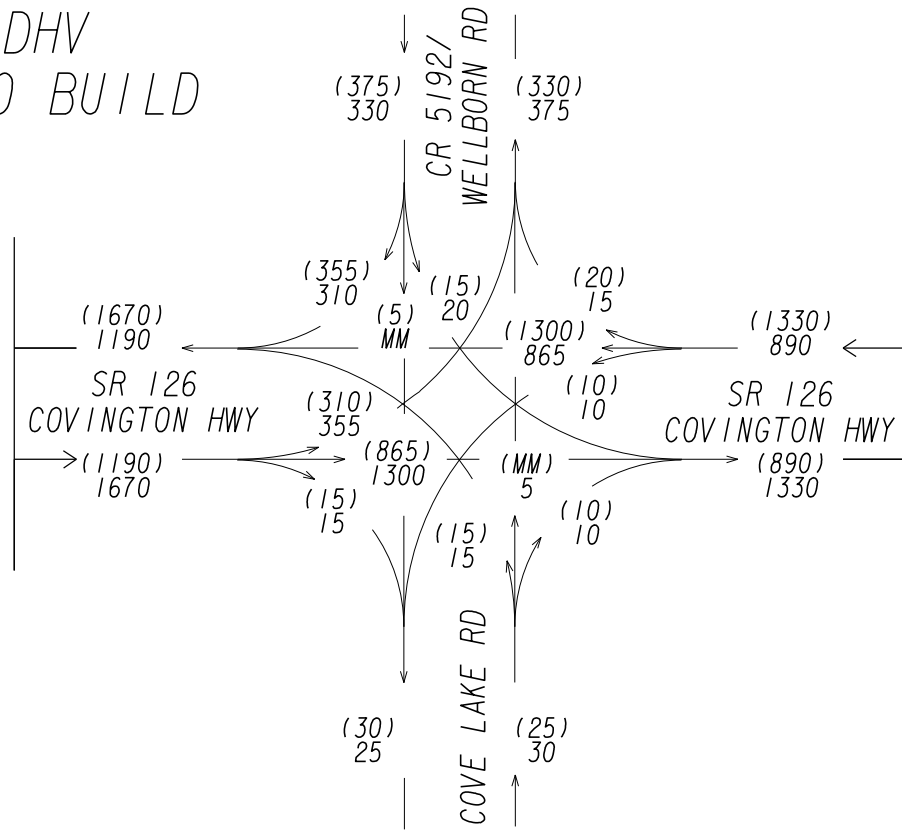
CHECKED:	DRF	DATE:	5/5/2016	DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10- 02

2022 ADT
BUILD= NO BUILD

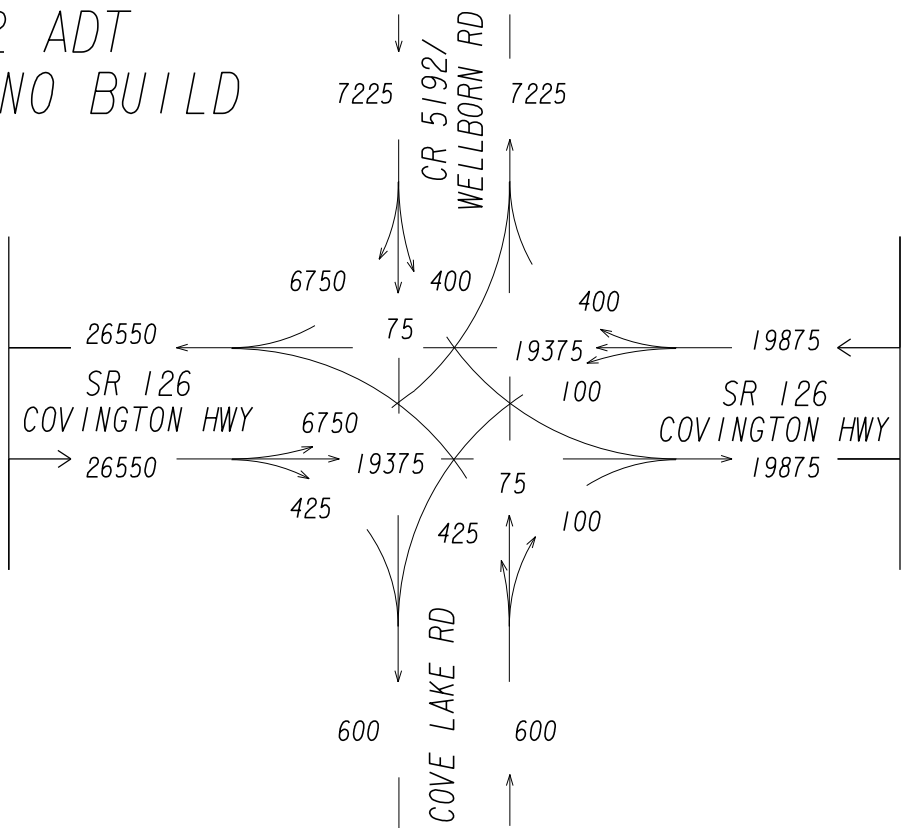


2022 DHV
BUILD= NO BUILD

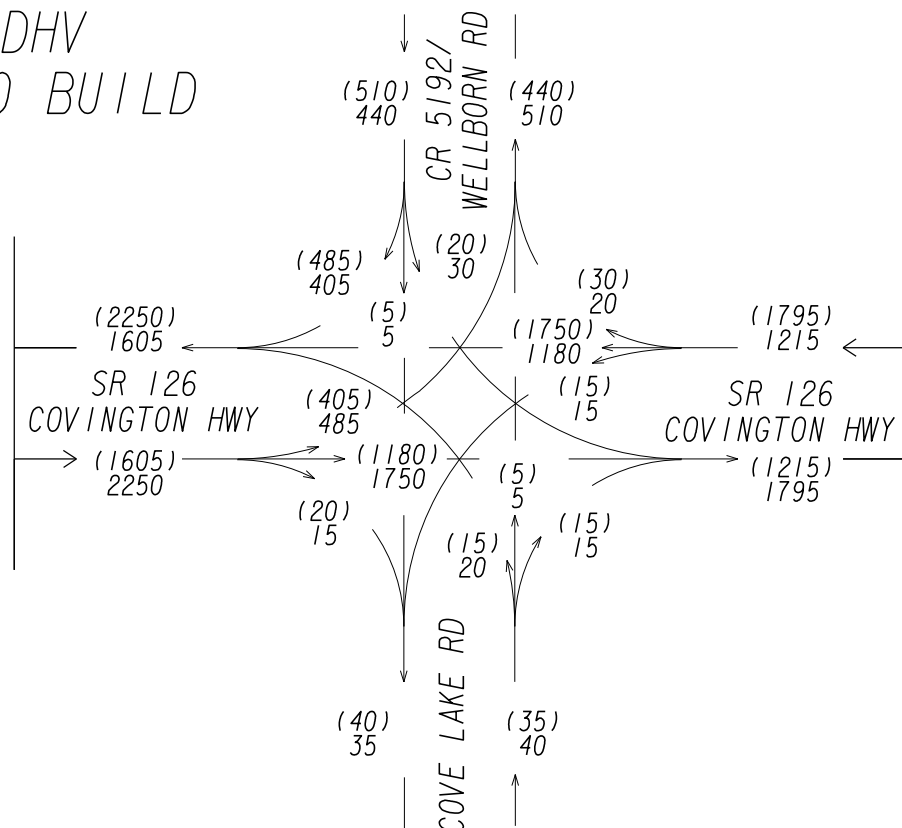


PM DHV = (000)
AM DHV = 000

2042 ADT
BUILD= NO BUILD



2042 DHV
BUILD= NO BUILD



PM DHV = (000)
AM DHV = 000

PI# 0013175
DEKALB COUNTY
SR 126 AT CR 5192/ COVE
LAKE RD/ WELLBORN RD

24 HOUR T= 3.0%
SU= 2.6%
COMB= 0.4%



T= 2.0%
SU= 1.8%
COMB= 0.2%

REVISION DATES

5/2016		

TRAFFIC DIAGRAM

CHECKED:	DRF	DATE:	5/5/2016	DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10- 03

Synchro Analysis Comparison Charts for






















SR 12 at Wellborn Rd

A.M. and P.M. Peak Hours

		SYNCHRO 7 A.M.				SYNCHRO 7 P.M.			
Road Name	Direction	Delay	LOS	V/C	Q (ft.)	Delay	LOS	V/C	Q (ft.)
Wellborn Rd	NB	120.1	F	N/A	N/A	120.1	F	N/A	N/A
	left.	62.5	E	0.47	185	62.5	E	0.47	185
	thru	145.9	F	1.10	#532	145.9	F	1.10	#532
	right								
Cove Lake Rd.	SB	69.5	E	N/A	N/A	69.5	E	N/A	N/A
	left.	67.5	E	0.56	153	67.5	E	0.56	153
	thru	71.1	E	0.52	196	71.1	E	0.52	196
	right								
SR 12	WB	63.8	E	N/A	N/A	63.7	E	N/A	N/A
	left.	13.5	B	0.34	73	10.9	B	0.17	35
	thru	67.8	E	1.03	#1309	67.8	E	1.03	#1309
	right	10.7	B	0.10	54	10.7	B	0.10	54
SR 12	EB	20.6	C	N/A	N/A	20.6	C	N/A	N/A
	left.	25.7	C	0.29	92	25.7	C	0.29	92
	thru	21.3	C	0.36	271	21.3	C	0.36	271
	right	3.6	A	0.07	23	3.6	A	0.07	23
	Total	57.9	E	1.10	N/A	57.8	F	1.10	N/A













Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2016
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	1185	15	10	800	15	10	5	10	20	0	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205		128	85		0	50		0	0		103
Storage Lanes	1		1	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.897				0.850
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	1770	1671	0	0	1770	1583
Flt Permitted	0.250			0.211			0.743				0.747	
Satd. Flow (perm)	466	3539	1583	393	3529	0	1384	1671	0	0	1391	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			5		1			11				219
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		587			1023			806			779	
Travel Time (s)		13.3			23.3			18.3			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	353	1288	16	11	870	16	11	5	11	22	0	304
Shared Lane Traffic (%)												
Lane Group Flow (vph)	353	1288	16	11	886	0	11	16	0	0	22	304
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt		Perm	pm+pt		Perm				Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8			2			6		6
Minimum Split (s)	8.0	21.7	21.7	9.5	20.2		21.0	21.0		21.0	21.0	21.0
Total Split (s)	8.0	21.7	21.7	9.5	20.2	0.0	89.3	89.3	0.0	89.3	89.3	89.3
Total Split (%)	6.6%	18.0%	18.0%	7.9%	16.8%	0.0%	74.1%	74.1%	0.0%	74.1%	74.1%	74.1%
Maximum Green (s)	4.0	16.0	16.0	4.0	16.0		84.3	84.3		84.3	84.3	84.3
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	0.5	2.0	2.0	2.0	0.5		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.5	4.2	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	0
Act Effct Green (s)	21.7	16.0	16.0	21.7	19.0		84.3	84.3			84.3	84.3
Actuated g/C Ratio	0.18	0.13	0.13	0.18	0.16		0.70	0.70			0.70	0.70
v/c Ratio	2.78	2.74	0.07	0.09	1.59		0.01	0.01			0.02	0.26
Control Delay	841.8	810.0	36.8	39.5	308.2		5.5	3.3			5.7	2.4

Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2016
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	841.8	810.0	36.8	39.5	308.2		5.5	3.3			5.7	2.4
LOS	F	F	D	D	F		A	A			A	A
Approach Delay		809.3			304.9			4.2			2.6	
Approach LOS		F			F			A			A	
Stops (vph)	221	777	12	9	583		4	3			5	28
Fuel Used(gal)	58	205	0	0	61		0	0			0	2
CO Emissions (g/hr)	4083	14339	17	15	4255		7	8			12	139
NOx Emissions (g/hr)	794	2790	3	3	828		1	2			2	27
VOC Emissions (g/hr)	946	3323	4	3	986		2	2			3	32
Dilemma Vehicles (#)	0	0	0	0	0		0	0			0	0
Queue Length 50th (ft)	~468	~897	8	7	~522		2	1			5	19
Queue Length 95th (ft)	#658	#1035	30	23	#654		8	8			13	47
Internal Link Dist (ft)		507			943			726			699	
Turn Bay Length (ft)	205		128	85			50					103
Base Capacity (vph)	127	470	215	116	557		968	1172			973	1173
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0
Storage Cap Reductn	0	0	0	0	0		0	0			0	0
Reduced v/c Ratio	2.78	2.74	0.07	0.09	1.59		0.01	0.01			0.02	0.26

Intersection Summary

Area Type: Other

Cycle Length: 120.5

Actuated Cycle Length: 120.5

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 2.78

Intersection Signal Delay: 555.8

Intersection LOS: F

Intersection Capacity Utilization 59.4%

ICU Level of Service B

Analysis Period (min) 15







~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















Splits and Phases: 3: SR 12 & Wellborn Rd

 Ø2	 Ø3	 Ø4
89.3 s	9.5 s	21.7 s
 Ø6	 Ø7	 Ø8
89.3 s	8 s	20.2 s

Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2020 No Build

5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	1255	15	10	845	15	15	5	10	20	0	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	206		128	85		0	50		0	0		103
Storage Lanes	1		1	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.897				0.850
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	1770	1671	0	0	1770	1583
Flt Permitted	0.250			0.211			0.743				0.747	
Satd. Flow (perm)	466	3539	1583	393	3529	0	1384	1671	0	0	1391	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			5		1			11				218
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		587			1023			806			779	
Travel Time (s)		13.3			23.3			18.3			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	1364	16	11	918	16	16	5	11	22	0	321
Shared Lane Traffic (%)												
Lane Group Flow (vph)	380	1364	16	11	934	0	16	16	0	0	22	321
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8			2			6		6
Minimum Split (s)	8.0	21.7	21.7	9.5	20.2		21.0	21.0		21.0	21.0	21.0
Total Split (s)	8.0	21.7	21.7	9.5	20.2	0.0	89.3	89.3	0.0	89.3	89.3	89.3
Total Split (%)	6.6%	18.0%	18.0%	7.9%	16.8%	0.0%	74.1%	74.1%	0.0%	74.1%	74.1%	74.1%
Maximum Green (s)	4.0	16.0	16.0	4.0	16.0		84.3	84.3		84.3	84.3	84.3
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	0.5	2.0	2.0	2.0	0.5		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.5	4.2	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	0
Act Effct Green (s)	21.7	16.0	16.0	21.7	19.0		84.3	84.3			84.3	84.3
Actuated g/C Ratio	0.18	0.13	0.13	0.18	0.16		0.70	0.70			0.70	0.70
v/c Ratio	2.99	2.90	0.07	0.09	1.68		0.02	0.01			0.02	0.27
Control Delay	935.5	881.5	36.8	39.5	344.8		5.6	3.3			5.7	2.7

Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2020 No Build
5/13/2016

	↗	→	↘	↙	←	↖	↗	↑	↘	↙	↓	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	935.5	881.5	36.8	39.5	344.8		5.6	3.3			5.7	2.7
LOS	F	F	D	D	F		A	A			A	A
Approach Delay		885.5			341.3			4.4			2.8	
Approach LOS		F			F			A			A	
Stops (vph)	241	831	12	9	600		6	3			5	32
Fuel Used(gal)	70	236	0	0	70		0	0			0	2
CO Emissions (g/hr)	4865	16466	17	15	4926		10	8			12	149
NOx Emissions (g/hr)	946	3204	3	3	958		2	2			2	29
VOC Emissions (g/hr)	1127	3816	4	3	1142		2	2			3	34
Dilemma Vehicles (#)	0	0	0	0	0		0	0			0	0
Queue Length 50th (ft)	~512	~962	8	7	~563		3	1			5	23
Queue Length 95th (ft)	#706	#1100	30	23	#696		10	8			13	53
Internal Link Dist (ft)		507			943			726			699	
Turn Bay Length (ft)	206		128	85			50					103
Base Capacity (vph)	127	470	215	116	557		968	1172			973	1173
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0
Storage Cap Reductn	0	0	0	0	0		0	0			0	0
Reduced v/c Ratio	2.99	2.90	0.07	0.09	1.68		0.02	0.01			0.02	0.27

Intersection Summary

Area Type: Other

Cycle Length: 120.5

Actuated Cycle Length: 120.5

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 2.99

Intersection Signal Delay: 611.1

Intersection LOS: F

Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 12 & Wellborn Rd

↑ ø2	↙ ø3	→ ø4
89.3 s	9.5 s	21.7 s
↓ ø6	↖ ø7	↗ ø8
89.3 s	8 s	20.2 s













Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2040 No Build
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	465	1705	15	15	1160	20	15	5	15	30	5	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	206		128	85		0	50		0	0		103
Storage Lanes	1		1	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Friction			0.850		0.997			0.886				0.850
Flt Protected	0.950			0.950			0.950				0.958	
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	1770	1650	0	0	1785	1583
Flt Permitted	0.250			0.211			0.732				0.828	
Satd. Flow (perm)	466	3539	1583	393	3529	0	1364	1650	0	0	1542	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			3		1			16				218
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		587			1023			806			779	
Travel Time (s)		13.3			23.3			18.3			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	505	1853	16	16	1261	22	16	5	16	33	5	424
Shared Lane Traffic (%)												
Lane Group Flow (vph)	505	1853	16	16	1283	0	16	21	0	0	38	424
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8			2			6		6
Minimum Split (s)	8.0	21.7	21.7	9.5	20.2		21.0	21.0		21.0	21.0	21.0
Total Split (s)	8.0	21.7	21.7	9.5	20.2	0.0	89.3	89.3	0.0	89.3	89.3	89.3
Total Split (%)	6.6%	18.0%	18.0%	7.9%	16.8%	0.0%	74.1%	74.1%	0.0%	74.1%	74.1%	74.1%
Maximum Green (s)	4.0	16.0	16.0	4.0	16.0		84.3	84.3		84.3	84.3	84.3
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	0.5	2.0	2.0	2.0	0.5		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.5	4.2	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	0
Act Effct Green (s)	21.7	16.0	16.0	21.7	19.0		84.3	84.3			84.3	84.3
Actuated g/C Ratio	0.18	0.13	0.13	0.18	0.16		0.70	0.70			0.70	0.70
v/c Ratio	3.98	3.94	0.08	0.14	2.30		0.02	0.02			0.04	0.36
Control Delay	1372.1	1344.0	40.9	40.5	616.5		5.6	2.9			5.7	4.1

Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2040 No Build
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	1372.1	1344.0	40.9	40.5	616.5		5.6	2.9			5.7	4.1
LOS	F	F	D	D	F		A	A			A	A
Approach Delay		1341.2			609.4			4.1			4.3	
Approach LOS		F			F			A			A	
Stops (vph)	359	1277	12	14	763		6	3			10	71
Fuel Used(gal)	134	481	0	0	162		0	0			0	3
CO Emissions (g/hr)	9367	33648	18	22	11304		10	10			22	216
NOx Emissions (g/hr)	1822	6547	4	4	2199		2	2			4	42
VOC Emissions (g/hr)	2171	7798	4	5	2620		2	2			5	50
Dilemma Vehicles (#)	0	0	0	0	0		0	0			0	0
Queue Length 50th (ft)	~715	~1378	9	10	~865		3	1			8	50
Queue Length 95th (ft)	#927	#1517	31	30	#1006		10	9			19	92
Internal Link Dist (ft)		507			943			726			699	
Turn Bay Length (ft)	206		128	85			50					103
Base Capacity (vph)	127	470	213	116	557		954	1159			1079	1173
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0
Storage Cap Reductn	0	0	0	0	0		0	0			0	0
Reduced v/c Ratio	3.98	3.94	0.08	0.14	2.30		0.02	0.02			0.04	0.36

Intersection Summary

Area Type: Other

Cycle Length: 120.5

Actuated Cycle Length: 120.5

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 3.98

Intersection Signal Delay: 953.4

Intersection LOS: F

Intersection Capacity Utilization 78.1%

ICU Level of Service D

Analysis Period (min) 15







~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 12 & Wellborn Rd

	ø2			ø3		ø4
89.3 s			9.5 s		21.7 s	
	ø6			ø7		ø8
89.3 s			8 s		20.2 s	













Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2020 Proposed
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	1255	15	10	845	15	15	5	10	20	0	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	206		128	85		0	50		0	200		100
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.897				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	1770	1671	0	1770	1863	1583
Flt Permitted	0.161			0.179			0.757			0.747		
Satd. Flow (perm)	300	3539	1583	333	3529	0	1410	1671	0	1391	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			13		3			11				311
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		587			1023			806			397	
Travel Time (s)		13.3			23.3			18.3			9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	1364	16	11	918	16	16	5	11	22	0	321
Shared Lane Traffic (%)												
Lane Group Flow (vph)	380	1364	16	11	934	0	16	16	0	22	0	321
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8			2			6		6
Minimum Split (s)	8.0	21.7	21.7	9.5	20.2		21.0	21.0		21.0	21.0	21.0
Total Split (s)	17.0	34.0	34.0	9.5	26.5	0.0	21.5	21.5	0.0	21.5	21.5	21.5
Total Split (%)	26.2%	52.3%	52.3%	14.6%	40.8%	0.0%	33.1%	33.1%	0.0%	33.1%	33.1%	33.1%
Maximum Green (s)	13.0	28.3	28.3	4.0	22.3		16.5	16.5		16.5	16.5	16.5
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	0.5	2.0	2.0	2.0	0.5		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.5	4.2	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	0
Act Effct Green (s)	39.5	28.3	28.3	25.0	22.3		16.5	16.5		16.5		16.5
Actuated g/C Ratio	0.61	0.44	0.44	0.38	0.34		0.25	0.25		0.25		0.25
v/c Ratio	0.80	0.89	0.02	0.05	0.77		0.04	0.04		0.06		0.51
Control Delay	26.4	25.8	6.6	7.6	24.2		18.9	12.7		19.1		6.3

Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2020 Proposed
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0		0.0
Total Delay	26.4	25.8	6.6	7.6	24.2		18.9	12.7		19.1		6.3
LOS	C	C	A	A	C		B	B		B		A
Approach Delay		25.8			24.0			15.8				
Approach LOS		C			C			B				
Stops (vph)	194	1045	6	8	728		14	9		18		44
Fuel Used(gal)	5	18	0	0	15		0	0		0		2
CO Emissions (g/hr)	318	1267	9	10	1057		16	13		17		107
NOx Emissions (g/hr)	62	246	2	2	206		3	2		3		21
VOC Emissions (g/hr)	74	294	2	2	245		4	3		4		25
Dilemma Vehicles (#)	0	0	0	0	0		0	0		0		0
Queue Length 50th (ft)	84	249	1	2	169		5	1		7		3
Queue Length 95th (ft)	#217	#385	10	7	236		18	15		22		58
Internal Link Dist (ft)		507			943			726			317	
Turn Bay Length (ft)	206		128	85			50			200		100
Base Capacity (vph)	476	1541	697	217	1213		358	432		353		634
Starvation Cap Reductn	0	0	0	0	0		0	0		0		0
Spillback Cap Reductn	0	0	0	0	0		0	0		0		0
Storage Cap Reductn	0	0	0	0	0		0	0		0		0
Reduced v/c Ratio	0.80	0.89	0.02	0.05	0.77		0.04	0.04		0.06		0.51

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 23.1

Intersection LOS: C

Intersection Capacity Utilization 62.0%







ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 12 & Wellborn Rd

 Ø2	 Ø3	 Ø4
21.5 s	9.5 s	34 s
 Ø6	 Ø7	 Ø8
21.5 s	17 s	26.5 s













Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2040 Proposed
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	465	1705	15	15	1160	20	15	5	15	30	5	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	206		128	85		0	50		0	200		100
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.886				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	1770	1650	0	1770	1863	1583
Flt Permitted	0.104			0.112			0.754			0.744		
Satd. Flow (perm)	194	3539	1583	209	3529	0	1405	1650	0	1386	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9		2			16				378
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		587			1023			806			397	
Travel Time (s)		13.3			23.3			18.3			9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	505	1853	16	16	1261	22	16	5	16	33	5	424
Shared Lane Traffic (%)												
Lane Group Flow (vph)	505	1853	16	16	1283	0	16	21	0	33	5	424
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8			2			6		6
Minimum Split (s)	8.0	21.7	21.7	9.5	20.2		21.0	21.0		21.0	21.0	21.0
Total Split (s)	27.0	57.5	57.5	9.5	40.0	0.0	23.0	23.0	0.0	23.0	23.0	23.0
Total Split (%)	30.0%	63.9%	63.9%	10.6%	44.4%	0.0%	25.6%	25.6%	0.0%	25.6%	25.6%	25.6%
Maximum Green (s)	23.0	51.8	51.8	4.0	35.8		18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	0.5	2.0	2.0	2.0	0.5		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.5	4.2	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	0
Act Effct Green (s)	63.0	51.8	51.8	38.5	35.8		18.0	18.0		18.0	18.0	18.0
Actuated g/C Ratio	0.70	0.58	0.58	0.43	0.40		0.20	0.20		0.20	0.20	0.20
v/c Ratio	0.94	0.91	0.02	0.10	0.91		0.06	0.06		0.12	0.01	0.68
Control Delay	50.5	25.4	5.7	9.4	37.0		29.9	16.6		30.9	29.2	11.9

Lanes, Volumes, Timings
3: SR 12 & Wellborn Rd

AM 2040 Proposed
5/13/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	50.5	25.4	5.7	9.4	37.0		29.9	16.6		30.9	29.2	11.9
LOS	D	C	A	A	D		C	B		C	C	B
Approach Delay		30.6			36.7			22.4			13.5	
Approach LOS		C			D			C			B	
Stops (vph)	321	1392	6	9	1032		14	10		25	7	73
Fuel Used(gal)	9	24	0	0	24		0	0		0	0	3
CO Emissions (g/hr)	607	1699	8	14	1678		18	17		29	6	179
NOx Emissions (g/hr)	118	331	2	3	327		4	3		6	1	35
VOC Emissions (g/hr)	141	394	2	3	389		4	4		7	1	41
Dilemma Vehicles (#)	0	0	0	0	0		0	0		0	0	0
Queue Length 50th (ft)	224	458	2	3	354		7	2		16	2	22
Queue Length 95th (ft)	#423	#612	10	8	#496		25	22		41	12	116
Internal Link Dist (ft)		507			943			726			317	
Turn Bay Length (ft)	206		128	85			50			200		100
Base Capacity (vph)	539	2037	915	159	1405		281	343		277	373	619
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.94	0.91	0.02	0.10	0.91		0.06	0.06		0.12	0.01	0.68

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 30.5

Intersection LOS: C

Intersection Capacity Utilization 77.8%







ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 12 & Wellborn Rd

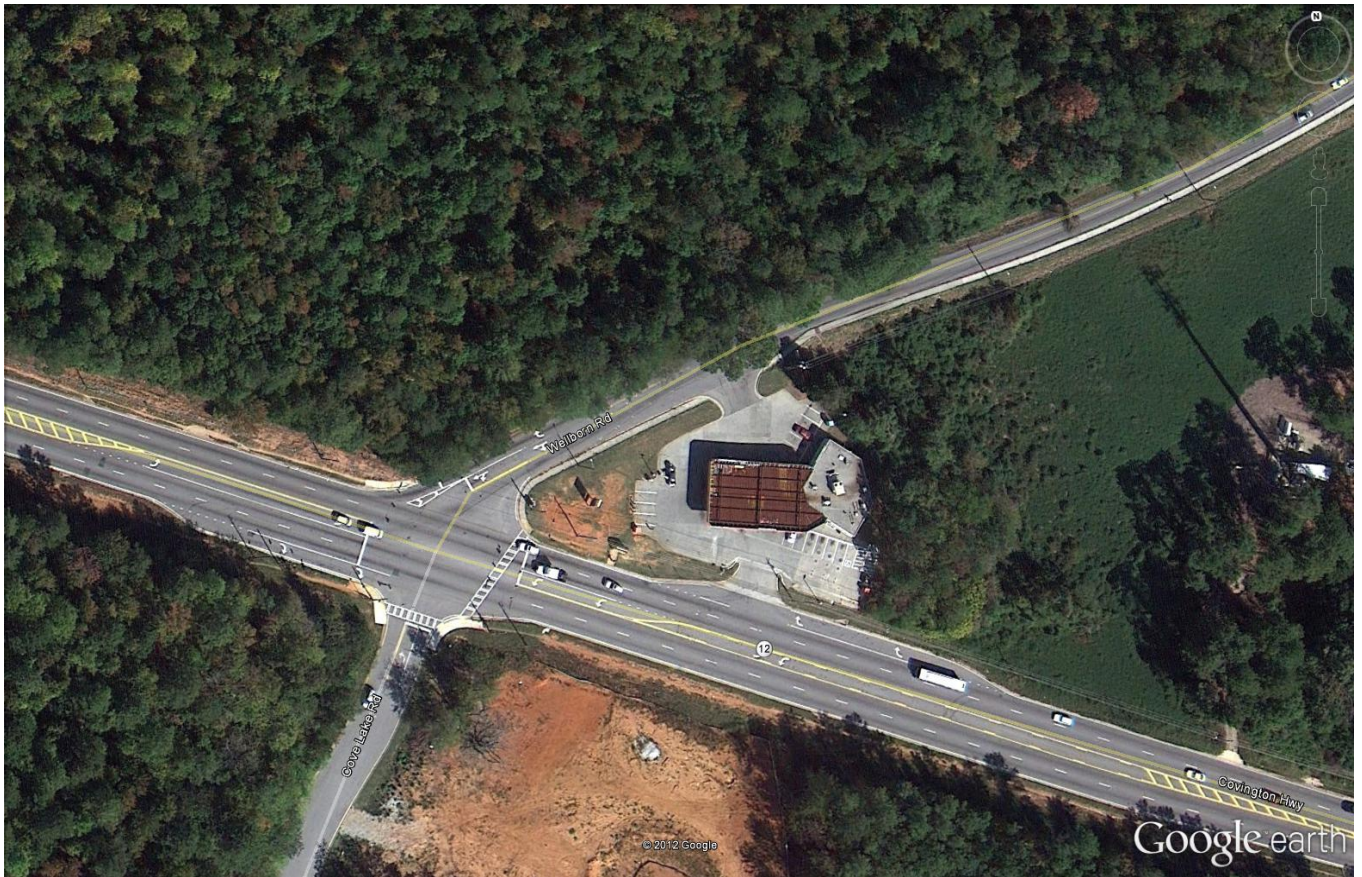
 Ø2	 Ø3	 Ø4
23 s	9.5 s	57.5 s
 Ø6	 Ø7	 Ø8
23 s	27 s	40 s

Department of Transportation
State of Georgia

Traffic Engineering Report

For the intersection State Route 12 and Cove Lake Rd/Wellborn Rd

In the County of Dekalb
At the Mile log: 7.47



Report prepared by:
Phillip Jackson
Traffic Engineer
5025 New Peachtree Rd
Chamblee, Ga 30341

Telephone number: 770-986-1775
Email Address: pjackson@dot.ga.gov

Date report prepared: December 4, 2012

Location: The intersection of Ga 12 (Covington Hwy) and Wellborn Rd/Cove Lake Rd is located in Lithonia, Georgia.

Reasons for the Investigation: The intersection of GA 12 and Cove Lake Rd has a high frequency rate of accidents. Chris Woods requested that this TE study be conducted to determine if an intersection improvement could be conducted to reduce the number of injuries and accidents.

Description of Intersection

The GA 12 (Covington Hwy), Cove Lake Rd, Wellborn Rd intersection is a four leg intersection. GA 12 (Covington Hwy) is the east and west leg of the intersection. Cove Lake Rd is the south leg of the intersection and does not have a skew. The Wellborn Rd is the north leg of the intersection and is skewed at approximately 40 degree angle.

***GA 12 (Covington Hwy)** is a multi-lane highway that travels East-West. GA 12 intersects with I-285 approximately 5 miles to east and I-20 approximately 3 miles to the west. At this intersection, GA 12 has two thru lanes in both the eastbound and the westbound directions. Additionally, there are a dedicated right and left turn lanes onto both Cove Lake Rd and Wellborn Rd.

***Cove Lake Rd** The leg that extends to the south is called Cove Lake. This road extends to a residential neighborhood consisting of approximately 120 houses.

***Wellborn Rd** The leg that extends to the north is called Wellborn Rd. Wellborn Rd extends approximately 2 miles. Multiple neighborhoods about Wellborn Rds.

Traffic Volumes in Vehicles per Day (VPD)

Year	GA 12	MP 7.47	Wellborn Rd	Cove Lake
2012	18940		10620	1940
2011	18960		10780	2200

*VPD values were taken from Transportation Data Viewer

Existing Traffic Control: State Route 12 and Cove Lake/Wellborn Rd is a signalized intersection with protected permissive left turns off of Georgia 12. Phases 3, 4, 7 and 8 run concurrently. There are no turn signals from Cove Lake or Wellborn road onto GA 12.

Vehicular Speeds: The posted speed limit on GA 12 is 45 mph. No excessive speeds were observed on GA 12.

Pedestrian Movements: Approximately 60 pedestrians were observed during 8 hour period of counting. There is a gas station and a bus stop on the North East corner of the intersection. One pedestrian complained that vehicles often honked at him and sometimes did not stop for him when he attempted to use the crosswalk when he was given the crosswalk sign.

Other modes of transportation present: None

Delay: There were no operational issues at this intersection. At times the queue on Wellborn road approaching GA 12 extended from 5-10 vehicles. Most of the time there was no queue on the Wellborn right turn lane.

Parking: There was no parking observed or expected at the intersection

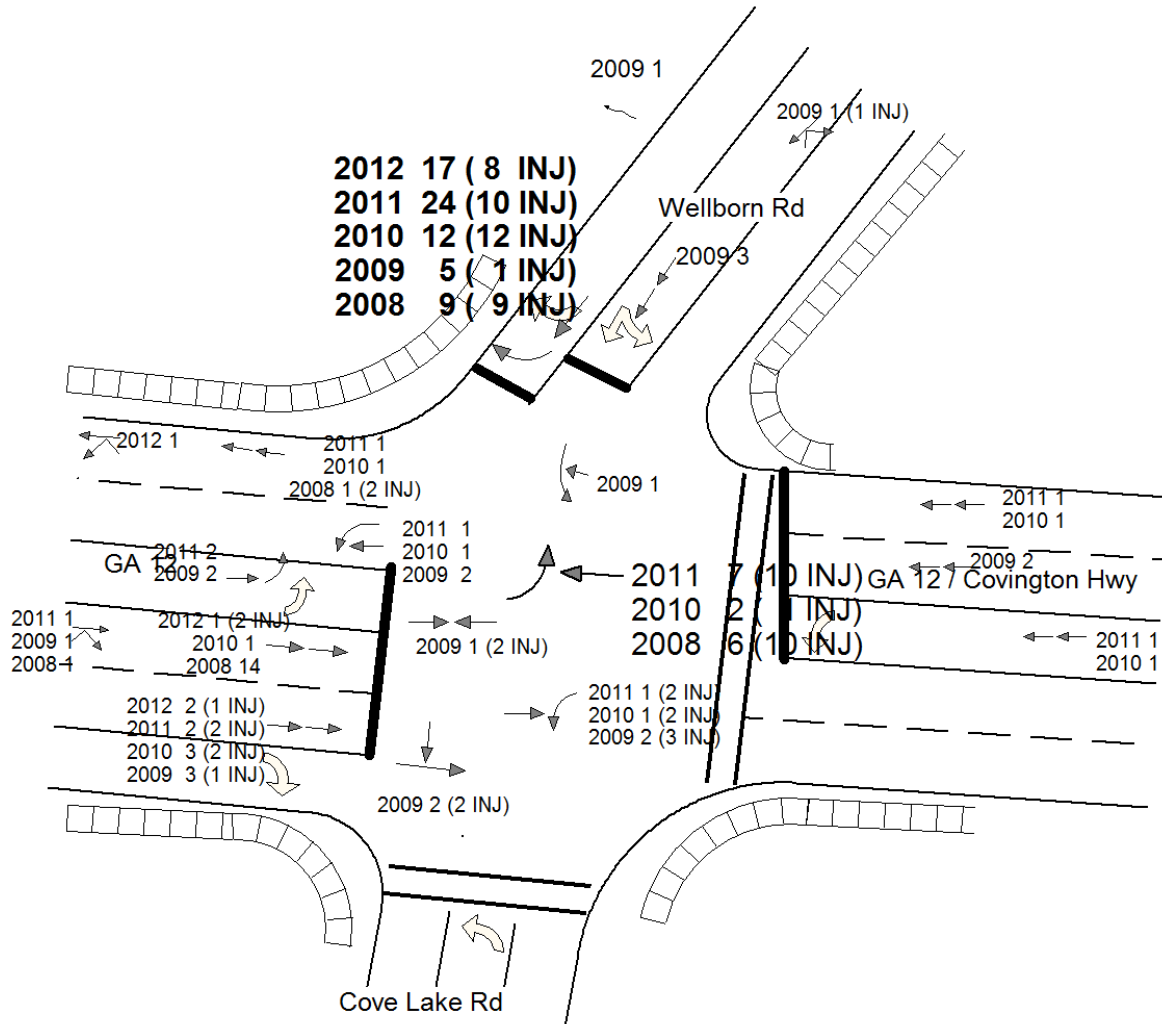
Sight Distance: There were no sight distance issues at this intersection. All approaches had sight distances over 1000 feet.

Accident History:

Year	Type of Collisions							Number of Resulting Injuries and Fatalities	
	Rear-end	Side-swipe	Angle	Head-on	Struck Object	Not a Collision with motor Vehicle	Total	Injury	Fatal
2008	24		6				30	21	
2009	13	4	4	1		1	23	9	
2010	19	1	4				24	17	
2011	33	2	8				43	24	
2012*	20	1					21	11	
Total	109	8	22	1		1	141	82	

*The 2012 accident data is not complete.

Collision Diagram Page



Additional Collision Summarizations

*(From 2008-2012)

	Collisions	Injuries
Day	92	50
Dusk/Dawn	6	2
Dark (lighted/non-lighted)	18	11
Total	116	63

Collision Type	Collisions	Injuries
Angle	11	9
Head On	2	5
Not A Collision	1	0
Rear End	96	48
Sideswipe	6	1
Total	116	63

	Collisions	Injuries
Dry	99	57
Wet	16	6
Icy	1	0
Total	116	63

Observations from the Collision Diagram, Collision Summary, and Field Visits

The majority of collisions at this intersection involved right turning vehicles turning from Wellborn Rd onto GA 12. The high skew of the intersection at Wellborn and GA 12 contributes to these accidents. Drivers turning right from Wellborn onto GA 12 have to tilt their head at a very high angle in order to view on-coming traffic. Often drivers assume that the vehicle in-front of them has moved, and immediately begin looking for gaps in on-coming traffic. As a result the drivers often lose track and collide with the vehicle immediately in-front of them. During an 8 hour observation period, one near collision was observed in this manner.

Furthermore, numerous accidents occur during the dark. In a five year period, there were at least 18 accidents and 11 injuries that occurred in dark conditions. This is above the FHA threshold for recommended street illumination (which is set at 10 accidents in 5 years in dark conditions). Lighting will also help prevent angle collisions at night.

Adjacent Signalized intersections:

Signalized intersections lie approximately 3850 feet to the west, 2810 feet to the east, and 3650 feet to the north.

Roundabout:

The major street and minor street split of the ADT is 65% and 35% respectively. The traffic volumes were modeled with SIDRAs roundabout analysis tool. A dual lane roundabout would function at a LOS D.

Level of Service – PEAK Hour

Current Configuration – Right turns from Wellborn on Red Permitted

	GA 12 East Bound			GA 12 West Bound			Cove Lake		Wellborn Rd		Overall
	L	T	R	L	T	TR	L	TR	LT	R	
LOS	A	C	C	C	B	A	B	A	B	A	C
Delay	9.5	33.5	32.8	29.3	18.3	.2	15.2	8	13.5	1.2	21.9

Current Configuration – Right turns from Wellborn on Red Prohibited with signal upgrades

	GA 12 East Bound			GA 12 West Bound			Cove Lake		Wellborn Rd		Overall
	L	T	R	L	T	TR	L	TR	LT	R	
LOS	A	C	C	C	B	A	B	A	B	A	C
Delay	9.5	33.5	32.8	29.3	18.3	.2	15.2	8	13.5	1.2	24.4

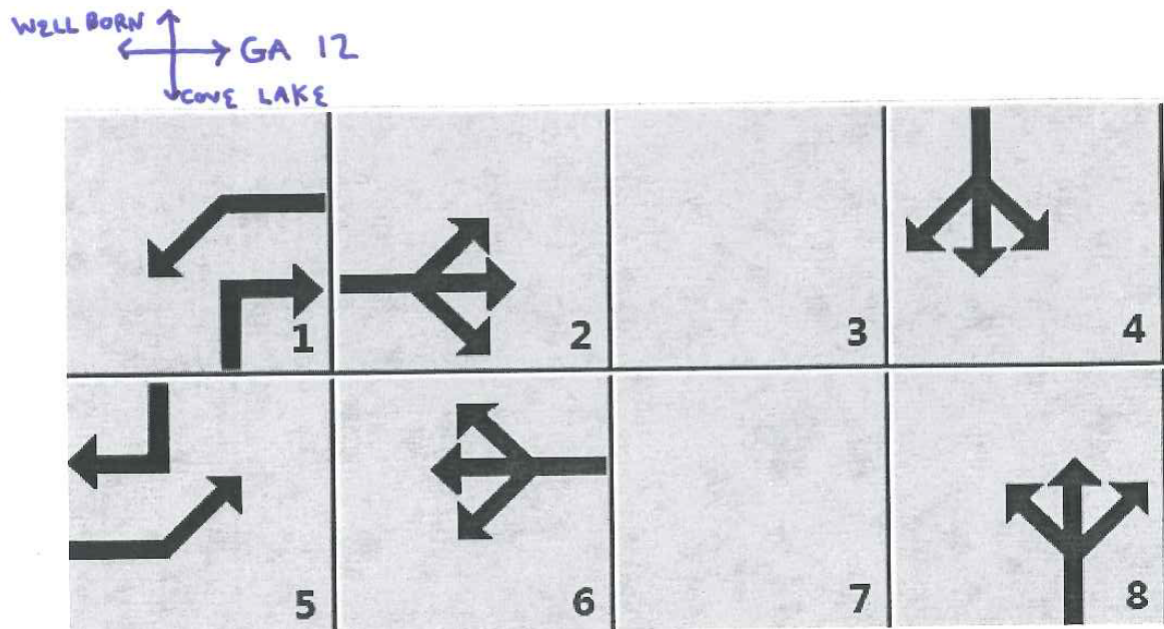
Potential Signal Upgrades

Next Page: Wellborn Rd headed towards GA 12. The right-turning lane signal heads on Wellborn Rd could be converted to right-turn arrows. The right turn signal heads could also be programmed to turn green concurrently with the turning phase 5.



Below

A phasing diagram shows the conflict between left turning vehicles from Wellborn Rd and pedestrians crossing GA 12 (on phases 4 and 8). This potentially hazardous conflict could be eliminated.



Conclusion

The majority of collisions involved right turning vehicles turning from Wellborn Rd onto GA 12. The high skew of the intersection at Wellborn and GA 12 contributed to these collisions. There are a number of remedial actions that can be taken to reduce the number of collisions and resulting injuries. A roundabout may reduce the number of accidents but, a two lane roundabout would not perform well operationally. Realigning the intersection would help reduce the number of collisions but would be cost prohibitive.

Prohibiting right turns from Wellborn Rd onto GA 12 except on green would reduce the number of accidents. The intersection level of service and intersection delay would increase slightly during the peak hour. The average intersection delay would be increased by approximately 4 seconds per vehicle during the morning peak hour. Prohibiting right turns would increase the delay experienced by drivers turning right from Wellborn Rd, especially during off-peak hours.

Alternatively to prohibiting right turns from Wellborn Rd onto GA 12, the right turn lane could be converted into a free flow lane. A free flow lane would reduce the number of rear-end collisions and injuries. The free flow lane would also perform better operationally during peak and off peak hours.

The signal at the intersection could be upgraded and synchronized. Green arrows/bulbs could display for right turning vehicles on Wellborn Rd onto GA 12 when left turning vehicles are given protected phases (Phase 1 and Phase 5). The signal should also be upgraded so that there is not a pedestrian conflict with vehicles on Phase 8.

Finally, multiple collisions and resulting injuries occur during dark conditions. Additional street illumination should be added and existing street illumination should be upgraded.

Recommendations

Alternative 1: Add an additional lane west bound on GA 12, to receive right turning vehicles from Wellborn Rd. Convert the right turn lane from Wellborn Road to a free flow lane. The adjacent land is undeveloped. There is some AT&T underground conduit would have to be relocated if this lane was developed. Intersection Street Illumination lighting should be upgraded. The signals should be upgraded.

Alternative 2: Upgrade the signals at the intersection and prohibit right turns on red. Intersection Street Illumination Lighting should be upgraded.

Alternative 3: Upgrade the intersection street illumination lighting.

PREPARED BY: _____ DATE: _____

District Traffic Operations Manager

RECOMMENDED BY: _____ DATE: _____

District Traffic Engineer

RECOMMENDED BY: _____ DATE: _____

State Traffic Operations Engineer

APPROVED BY: _____ DATE: _____

Director of Operations

cc: file

Traffic Engineering Report
State Route 12 and Wellborn Rd/Cove Lake
Date December 12, 2012
Page 10 of 10

Traffic Engineering Report Appendix

*Synchro Signal Timing Sheets

*Traffic Count Summary Sheets

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INDICATION OF SUPPORT

Georgia Department of Transportation
District 7 Main Office
5025 New Peachtree Road
Chamblee, GA 30341
ATTN: Mehdi Bashirian, District Design Engineer

Location

DeKalb County supports the consideration of roadway lighting at the location specified below.

Description: SR 12 @ CR 5192/Cove Lake Road/Wellborn Road

State/County Route Numbers: (see above)

Project: P.I. No. 0013175

Associated Conditions

The undersigned agrees to participate in the following maintenance of the intersection in the event that lighting is included in the project:

- The full and entire cost to energize the lighting system installed and to provide for the operation/maintenance thereof.

We agree to participate in a formal *Local Government Lighting Project Agreement* during the preliminary design phase. This indication of support is submitted and all the conditions are hereby agreed to. The undersigned are duly authorized to execute this agreement.

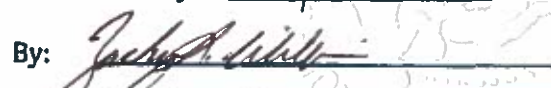
Attest:


County Clerk

This 28 day of September, 2016

By:

Title:


COO/EA

PI 0013175 CONCEPT TEAM MEETING MINUTES

LOCATION: 5025 New Peachtree, Chamblee Ga 30341
MEETING DATE: Thursday, May 19, 2016, 01:30 PM
RE: SR 12 @ CR 5192/Cove Lake Road/Wellborn Road
PI No. 0013175, DeKalb County

ATTENDEES: Scott Lee – GDOT, D7 Design
Mehdi Bashirian – GDOT, D7 Design
Shawn Buckley- GDOT, D7 Design
Davis Robinson- GDOT, D7 Design
Lewis Brooker GDOT, D7 Utilities
Andrew Cobb-OES
Lakeshia Osborn-GO, Traffic Operations
Patrece Keeter, DeKalb County
Kimberly Nesbitt-OPD

Introductions

- Kimberly Nesbitt started the meeting with introductions and a description of the project. The project justification was read and a briefing on the programmed funds provided through Traffic Operations for operational improvement funds was listed.

Justification Statement

- The purpose of this project is to reduce crash frequency and severity while improving the operation of SR 12 at Cove Lake Road/Wellborn Road. In an effort to mitigate the crashes at the intersection the following improvement will be included: reducing the skew angle of Wellborn Road, upgrading the existing signal equipment, adding a right turn lane, and illuminating the intersection. The implementation of these proposed countermeasures will help reduce the crash frequency and severities. The Office of Traffic Operations recommends a safety improvement project at this intersection.

▪

Project Background

- Davis Robinson described the project layout.
- Survey was requested and is expected soon.
- Currently Wellborn Road angle of intersect is below 70% which is not desirable. They are record accidents for vehicles traveling south on Wellborn Rd, and turning right (west) onto Covington Hwy. There was a discussion of the posted speed limit and how Covington Hwy. opens up traveling east between Panola Rd. and Wellborn.
- There is a gas station in the northeast quadrant with an undeveloped buffer. It was discussed to shift Wellborn Rd. east if possible to avoid the topo grade drop on the west side of Wellborn Road. There may be a conflict with that option if monitoring wells or gas tanks are close of the buffer. The designer stated they would verify survey picked up their locations.

- DeKalb County requested sidewalk be considered if possible for the entire project limits
- There does not seem to be any sidewalk within the limits for projects. Landing pads and ADA ramps will be placed in each quadrant. The PM will follow up with the Program Managers to determine if sidewalk can be constructed on the north side of Covington Hwy. east of Wellborn Rd.
- There is a MARTA stop on the northeast side of the intersection.
- There does not seem to be any major utility conflicts however proper 1st utility submission will determine if that is correct.
- The right lane traveling on west on Covington Hwy. should be extended.
- There is a park on the south side of the mainline. The team tried to determine if it was a public park. Design discussed the project limits and believes the park would not be impacted.

Public Involvement

- A PIOH is not expected.

Environmental Resources

- History not anticipated
- Concern was there may be a stream in the northwest quadrant of the project
 - It is anticipated that a CE will be required.
 - It is anticipated that no endangered species studies will be needed for this area of DeKalb County
 - A UST/hazardous waste investigation will be required.
 - A 404 permit will likely be required.
-

Right of Way

- Right of Way had no concerns. Expected to take 12 month to acquire right of way after funds authorization.

Utilities

- 1st and 2nd utilities submittal will be done by District Utilities

Staging, Maintenance and Constructability

- No issues where noted.

Closing

- Kim asked if anyone had any further questions or concerns.